



# Implementing Transit P3s: Leveraging TIFIA and Private Equity

## *Implementation of PPPs For Transit Workshop*

Sponsored by the Metropolitan Atlanta Rapid Transit Authority

Co-sponsored by the US Federal Transit Administration and the  
National Council for Public-Private Partnerships

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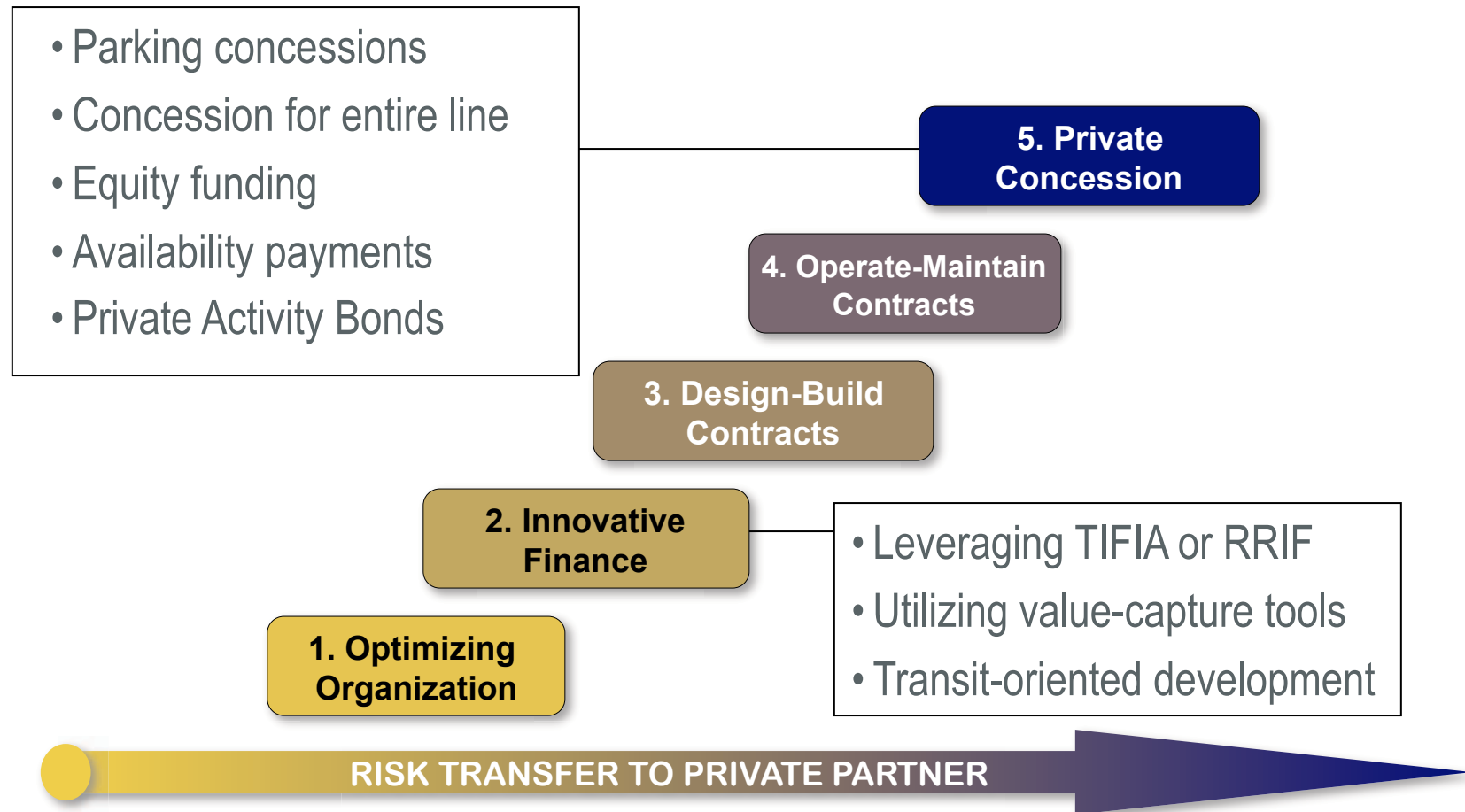


# Overview

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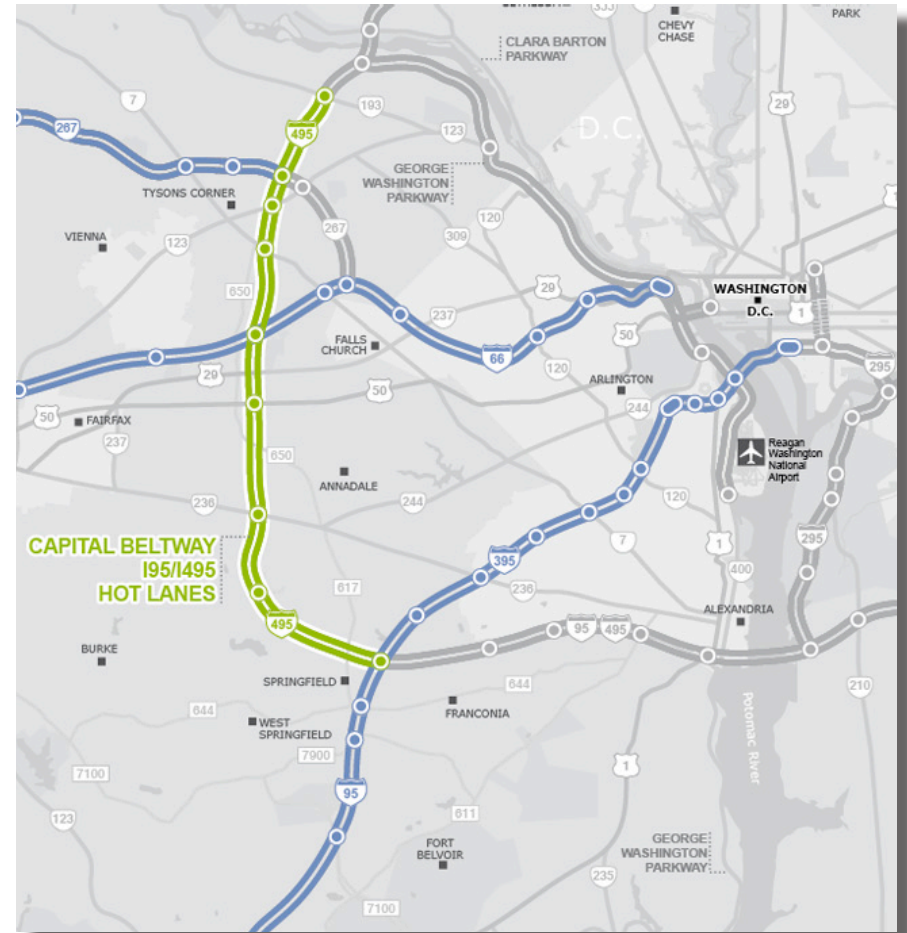
- Spectrum of public-private partnership options
- Capital Beltway and the TIFIA program
- TIFIA and transit P3s and innovative finance

# P3s offer many ways to meet funding, management & project delivery needs



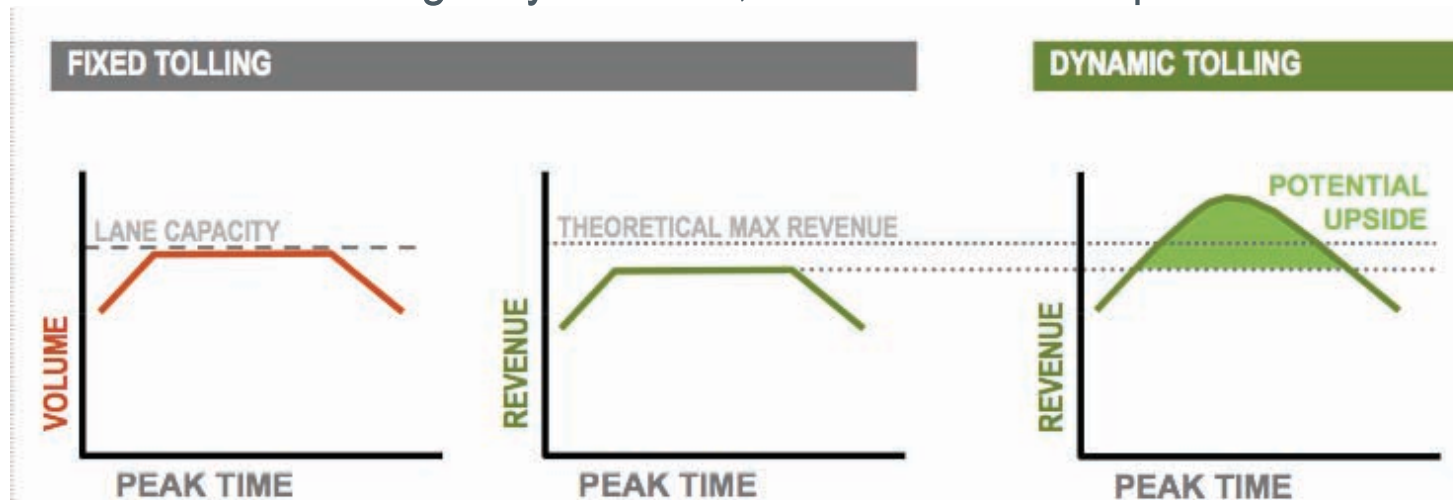
# Capital Beltway illustrates how TIFIA, private equity, PABs and grants can yield innovative financing

- Transurban/Fluor signed 80-year contract with VDOT to design, build, finance and operate 14-mile Capital Beltway in northern VA for 80 years, utilizing innovative **congestion pricing**
- Shows use of **TIFIA or innovative finance/subordinate lending**
- Illustrates role of **private equity and private activity bonds (PABs)** in P3 financing



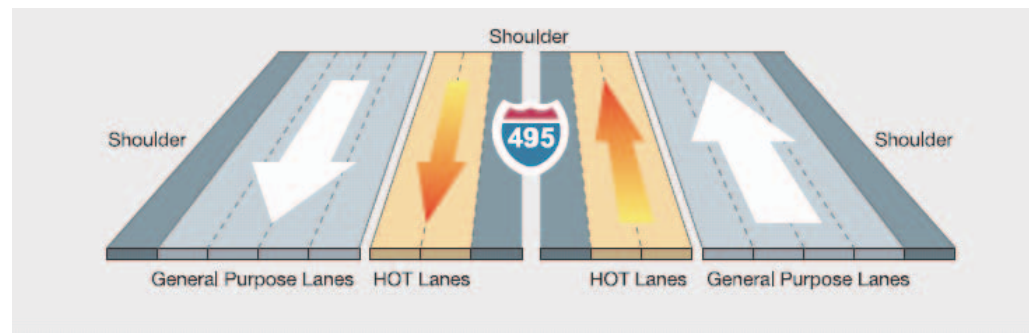
## The project works like a transportation “peaker plant,” using toll rates to manage demand

- One of first US facilities to use congestion pricing in which Transurban will manage high occupancy toll (HOT) lanes to maintain minimum average speed of **45 mph**, through toll adjustments; no limit on toll rates
- HOT lanes will allow free passage for vehicles with 3 or more occupants, transit and emergency vehicles; trucks will not be permitted



Source: “Strength and Stability,” Interim Results, Transurban, 20 February, 2008, [http://www.transurban.com.au/transurban\\_online/tu\\_nav\\_black.nsf/alltitle/investors-presentations-2008](http://www.transurban.com.au/transurban_online/tu_nav_black.nsf/alltitle/investors-presentations-2008)

# VDOT has transferred significant construction risk to private parties



- (Re)construction of 12 lanes and 50 bridges
- Design-Build Contract provides for a **firm, fixed-price, lump sum, not subject to adjustment**
- Fluor Corporation has provided a **guaranty** for all of the design-build contractor's obligations
- **Liquidated delay damages** will be payable by the Design-Build Contractor for failure to achieve completion deadlines
- Fluor is paid **bonus** if project completed six months prior to original completion date in amount equal to 50% of net toll revenues collected

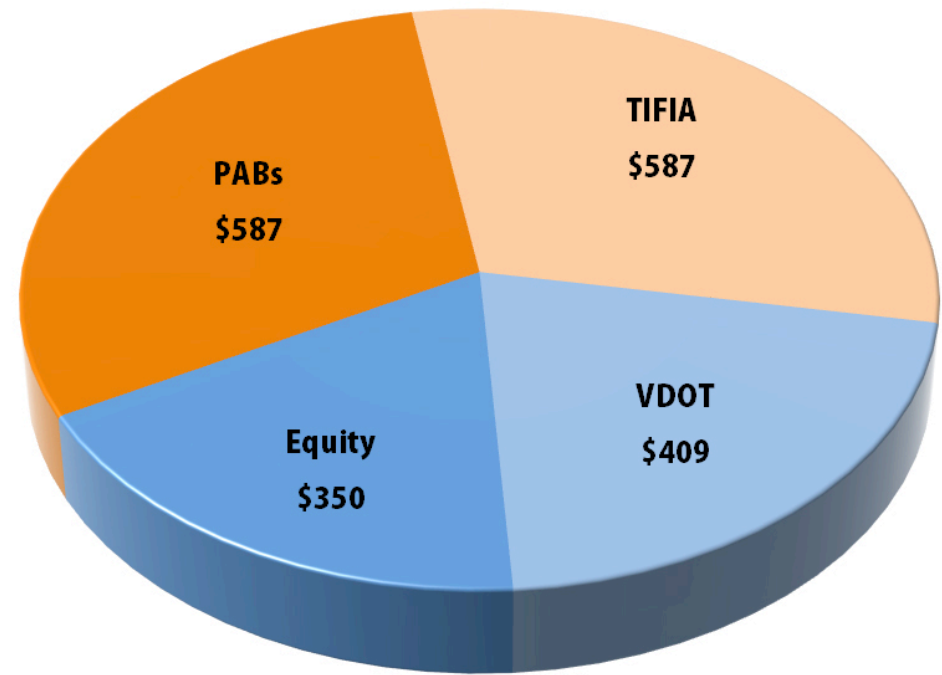
## VDOT has transferred much revenue and financing risk to the private sector as well

	Transurban/Fluor & Private Finance	VDOT
Pre-Development Phase	X	X
ROW Cost Risks		X
DBOM Terms & Conditions		X
Public Funding Risks		X
Toll Revenue Risks	X	
Debt Funding Risks	X	
Construction Cost Risks	X	
Operating/Performance Risks	X	
Maintenance Risks	X	



# Funding was a combination of public and private sources and innovative finance tools

- Private Activity Bonds: benchmark of 3.6% for 20 years + margin of 1.75% for 7 years (5.35%); total 40 years
- TIFIA: 4.45%, 40 years, < than 25% of interest paid can cause default
- PABs & TIFIA: no principal repayment, first 25 years
- Equity should be able to yield a return of 13%



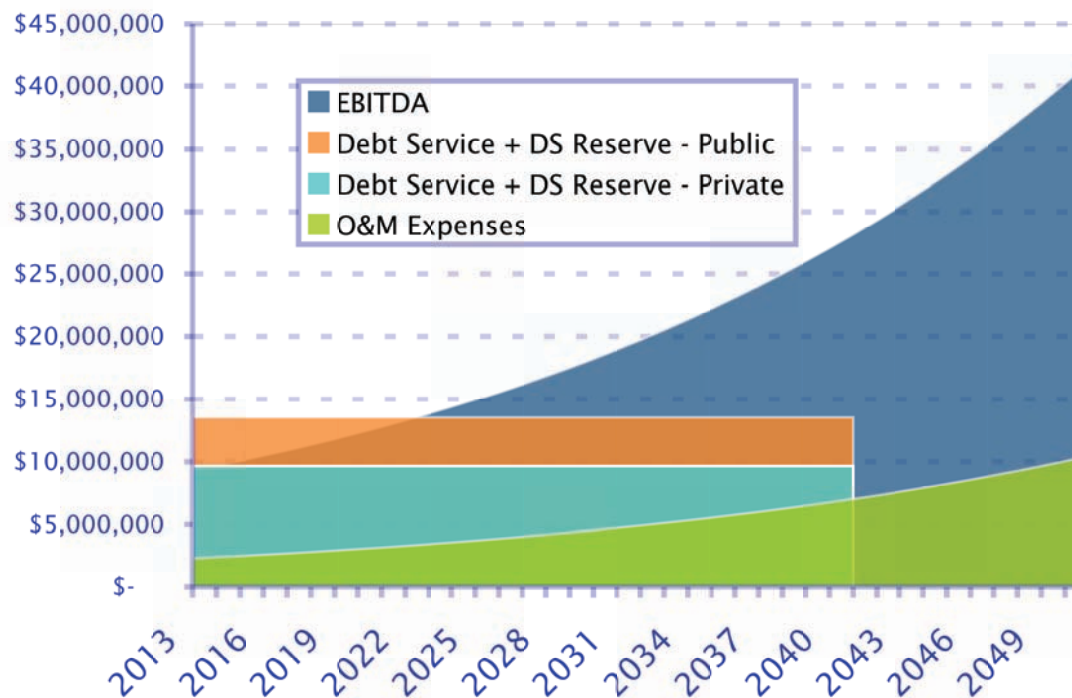
Source: "Capital Beltway," Investor Briefing, Transurban, December 21, 2007, [http://www.transurban.com.au/transurban\\_online/tu\\_nav\\_black.nsf/alltitle/investors-presentations-2007?open](http://www.transurban.com.au/transurban_online/tu_nav_black.nsf/alltitle/investors-presentations-2007?open), and

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# TIFIA and equity relieved Capital Beltway from some early year repayment requirements

*Greenfield Project Cash flows With and Without Equity*



- Due to ramp-up characteristics, financing with tax exempt debt is less feasible
- Using equity, early debt service obligations are reduced
- Dividends (EBITDA) repay equity later in project

# TIFIA allowed 5 years interest capitalization (CAPI) plus 15 years current interest only

Year	Toll Revenues <sup>1</sup>	Interest Revenues and Other Revenues <sup>2</sup>	Operating Expenses <sup>3</sup>	Capital Expenditures and Major Maintenance Expenses <sup>4</sup>	Net Cash Movement from Reserves <sup>5</sup>	Net Cash Flow Available for Debt Service <sup>6</sup>	Balance in the Ramp-up Reserve <sup>7</sup>	Total Senior Debt Service <sup>8</sup>	Senior DSCR <sup>9</sup>	Total TIFIA Interest Payable	TIFIA Repayment	Total DSCR <sup>7</sup>
2013	\$54,663,279	\$5,487,078	(\$31,329,034)	(\$13,415,187)	\$13,415,187	\$28,821,323	\$30,000,000	\$22,984,968	2.56x	\$ --	\$ --	2.56x
2014	80,818,538	9,174,306	(29,318,952)	--	0	60,673,891	29,142,650	30,166,044	2.98x	--	--	2.98x
2015	99,228,196	8,257,753	(30,597,423)	--	(1,477,532)	75,410,994	29,142,650	30,166,044	2.50x	--	--	2.50x
2016	106,934,276	7,418,797	(32,044,048)	--	(3,771,857)	78,537,169	29,142,650	30,108,780	2.61x	--	--	2.61x
2017	111,598,796	6,717,127	(33,159,900)	--	(9,051,152)	76,104,871	29,142,650	30,166,044	2.52x	--	--	2.52x
2018	116,467,064	5,480,946	(34,315,733)	(4,433,039)	(7,257,707)	75,941,531	--	30,166,044	2.52x	28,990,914	--	1.28x
2019	121,547,710	5,680,066	(35,513,029)	(25,740,155)	8,448,075	74,422,668	--	30,166,044	2.47x	28,990,914	--	1.26x
2020	128,031,182	5,435,493	(36,873,628)	(15,838,141)	614,640	81,369,546	--	30,108,780	2.70x	28,990,914	--	1.38x
2021	133,498,850	5,467,671	(38,159,009)	(11,488,372)	(193,062)	89,126,079	--	30,166,044	2.95x	28,990,914	--	1.51x
2022	139,200,376	5,353,345	(39,490,427)	(24,086,230)	15,430,661	96,407,724	--	30,166,044	3.20x	28,990,914	--	1.63x
2023	145,145,499	4,916,975	(40,869,590)	(9,080,136)	(2,685,796)	97,426,952	--	30,166,044	3.23x	28,990,914	--	1.65x
2024	151,346,071	5,298,222	(42,298,304)	(913,861)	(20,893,704)	92,538,424	--	30,108,780	3.07x	28,990,914	--	1.57x
2025	157,809,254	6,135,065	(43,778,276)	(14,977,808)	(6,541,161)	98,647,074	--	30,166,044	3.27x	28,990,914	--	1.67x
2026	164,549,500	6,439,433	(45,311,546)	(18,378,916)	(2,103,290)	105,195,181	--	30,166,044	3.49x	28,990,914	--	1.78x
2027	171,576,506	6,481,484	(46,900,028)	(31,000,506)	8,049,387	108,206,845	--	30,166,044	3.59x	28,990,914	--	1.83x
2028	178,906,006	6,473,028	(48,545,861)	(14,072,586)	(17,817,510)	104,943,077	--	31,036,482	3.38x	28,990,914	--	1.75x
2029	186,546,715	7,452,110	(50,251,099)	(15,224,680)	(27,660,526)	100,862,520	--	31,764,001	3.18x	28,990,914	--	1.66x
2030	194,513,534	8,375,659	(52,017,971)	(38,371,782)	6,945,864	119,445,304	--	31,764,001	3.76x	28,990,914	--	1.97x
2031	202,820,013	8,023,070	(53,847,072)	(40,848,974)	16,728,466	132,875,502	--	31,764,001	4.18x	28,990,914	--	2.19x
2032	211,482,421	7,237,002	(55,740,567)	(48,161,945)	26,037,912	140,854,823	--	31,706,737	4.44x	28,990,914	--	2.32x
2033	220,515,617	6,924,257	(57,700,757)	(3,943,647)	(43,608,005)	122,187,465	--	31,764,001	3.85x	28,846,026	12,552,962	1.67x
2034	229,935,059	9,126,632	(59,730,027)	(18,881,833)	(58,062,197)	102,387,633	--	31,764,001	3.22x	28,432,307	--	1.70x
2035	239,754,455	11,515,018	(61,830,678)	(42,137,037)	(31,029,013)	116,272,744	--	31,764,001	3.66x	28,375,049	4,437,779	1.80x
2036	249,887,283	12,295,915	(63,888,082)	(80,179,781)	30,794,241	148,909,576	--	31,706,737	4.70x	27,832,297	35,025,941	1.57x
2037	260,341,814	10,344,558	(66,012,069)	(107,009,159)	88,697,546	186,362,690	--	31,764,001	5.87x	26,060,764	55,363,800	1.65x
2038	271,126,588	7,308,913	(68,204,756)	(30,737,175)	11,557,790	191,051,359	--	49,195,218	3.88x	23,719,059	44,285,541	1.63x
2039	282,250,425	7,213,995	(70,468,331)	(8,855,674)	(18,199,239)	191,941,176	--	48,242,298	3.98x	21,726,430	46,278,170	1.65x
2040	293,722,431	8,077,509	(72,805,051)	(13,751,172)	(13,908,187)	201,335,530	--	53,046,779	3.80x	19,646,234	48,358,366	1.66x
2041	305,552,009	8,463,226	(75,217,249)	(33,295,972)	16,010,119	221,512,133	--	75,070,847	2.95x	17,468,256	50,536,344	1.55x
2042	317,748,868	7,731,105	(77,707,330)	(32,430,167)	25,935,579	241,278,054	--	89,960,945	2.68x	15,194,372	52,810,228	1.53x
2043	330,323,032	6,799,269	(80,277,780)	(15,504,154)	14,158,418	255,498,784	--	103,898,122	2.46x	12,818,174	55,186,426	1.49x
2044	343,284,851	6,503,012	(82,931,164)	(2,116,185)	(6,691,219)	258,049,295	--	99,421,401	2.60x	10,337,148	57,667,452	1.54x
2045	356,645,010	7,086,816	(85,670,131)	--	(22,109,792)	255,951,903	--	95,004,202	2.69x	7,740,310	60,264,290	1.57x
2046	370,414,540	8,295,951	(88,497,416)	--	(31,049,015)	259,164,059	--	93,422,648	2.77x	5,028,717	62,975,883	1.61x
2047	<u>384,604,826</u>	<u>9,685,660</u>	<u>(91,415,842)</u>	<u>(24,442,071)</u>	<u>(19,998,979)</u>	<u>258,433,593</u>	--	<u>88,816,868</u>	<u>2.91x</u>	<u>2,195,115</u>	<u>65,738,029</u>	<u>1.65x</u>
Total	\$7,312,790,595	\$258,676,466	(\$1,922,718,163)	(\$739,316,346)	(\$61,285,057)	\$4,848,147,496	--	\$1,558,015,074	--	\$710,283,967	\$651,481,212	--

<sup>1</sup> Toll Revenues are in nominal dollars. Real dollars are converted to nominal dollars using a rate of inflation of three percent per annum (See Attachment 1 to Appendix J).

<sup>2</sup> "Other Revenues" include revenue from fines paid by violators.

<sup>3</sup> Including Project Costs as defined in the Master Indenture of Trust, during the first three months of 2013.

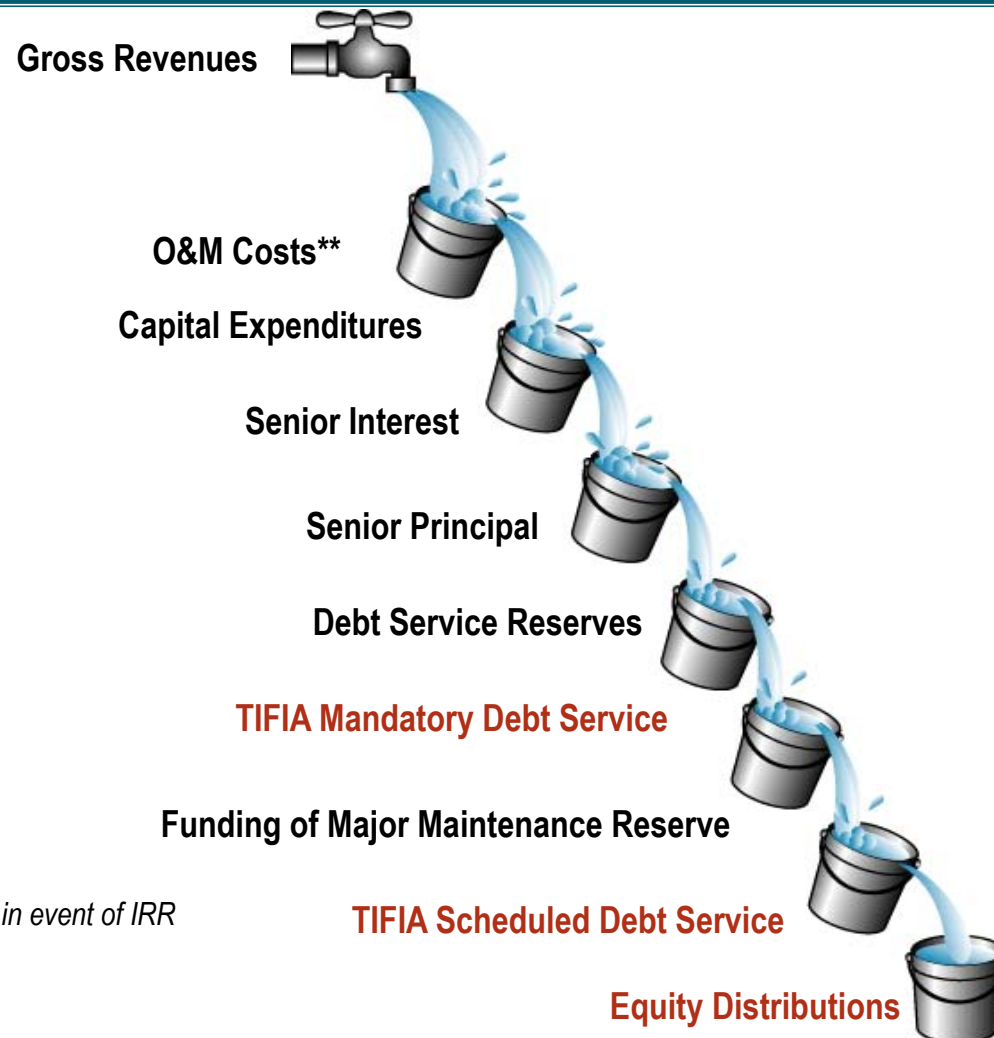
<sup>4</sup> Including movements to and from (i) the Major Maintenance Reserve Fund, (ii) the Capital Expenditure Reserve Fund, (iii) the O&M Reserve Fund, (iv) the Ramp-Up Reserve Fund, and (v) the Construction Fund for the first three months of 2013.

<sup>5</sup> Net of Senior Interest paid from monies withdrawn from the Construction Fund during the first three months of 2013. Credit Enhancement is assumed to be in place at same cost during the term of the Bonds.

<sup>6</sup> Per the Master Indenture of Trust, the Balance of the Ramp-up Reserve at the beginning of the Calculation Period is included in the numerator of the DSCR during two years.

<sup>7</sup> Per the Master Indenture of Trust, the Total Debt Service Coverage Ratio excludes TIFIA Scheduled Debt Service. The ratios presented in this table include both Mandatory and Scheduled TIFIA Debt Service.

# The flow of funds generally reflected the risk-return calculus of each funding source



*\*\* Includes payments to VDOT in event of IRR in excess of 15%*

# Key ratios determined TIFIA loan parameters

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## TIFIA loan size and eligibility:

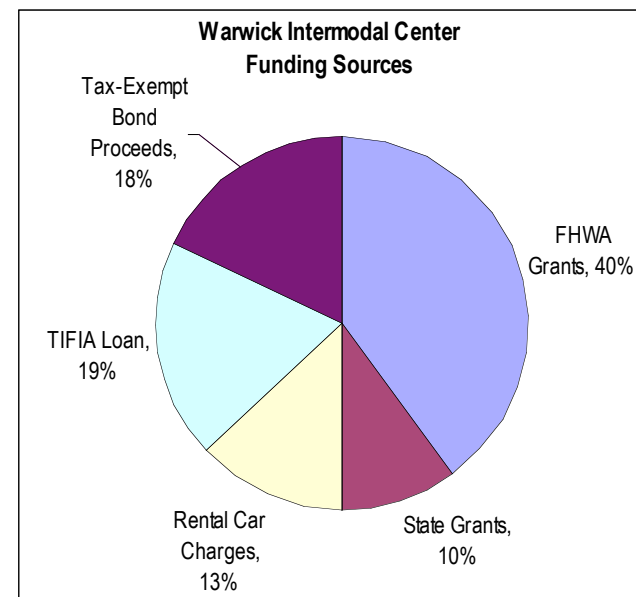
- Intended to fill market gaps for projects of at least \$50 M with national significance, including transit and passenger rail facilities
- TIFIA loan sized 33% of eligible project costs and less than senior debt
- Senior debt must be rated investment grade

## Coverage, including for refinancing and regearing:

- Total debt service coverage ratio (senior and TIFIA) of at least 1.10
- TIFIA loan life coverage ratio of at least 1.30
- 50% of net regearing proceeds go to repaying TIFIA loans

# TIFIA supported the Warwick Intermodal Facility and other transit/rail projects in Miami, San Juan & Reno

- \$200 M facility for rental car, parking, commuter rail, bus station, and future Amtrak facility
- Located on former superfund site, with opportunities for future office, hotel and other real estate growth
- Funded with rental car charges, other facility fees, federal and state grants





# California High-Speed Rail (CA HSR) will combine P3, TIFIA, innovative finance and grant funding



## CA HSR's \$33 B expected to be sourced from state and federal grants, private companies, locals support

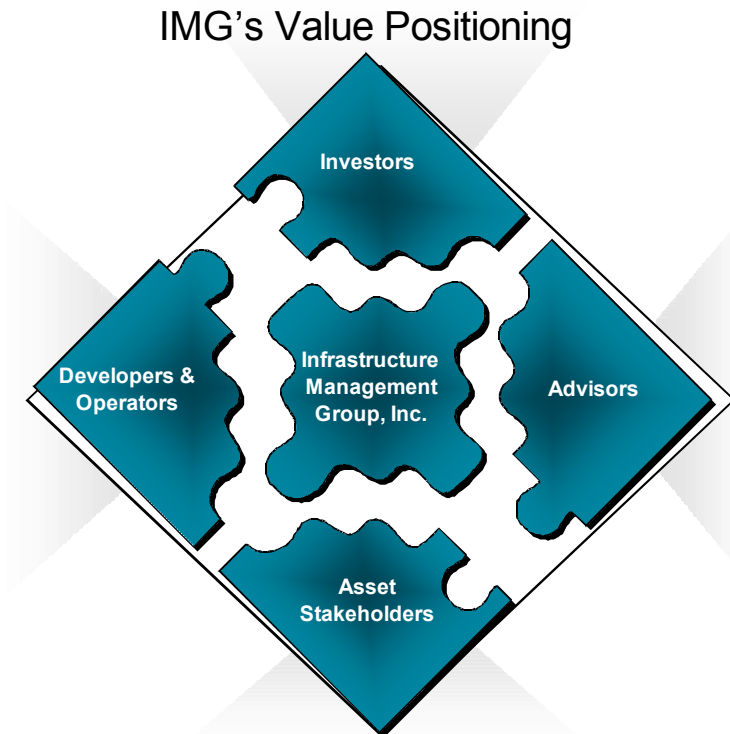
<u>Funding Sources</u>	<u>Amount (in \$B)*</u>
Public-Private Partnerships (PABs, RRIF, TIFIA, Private Equity)	\$6.5 to \$7.5
State Support	\$9
Federal Support	\$12 to \$16
Local Partnerships	\$2 to \$3
Total Funding	\$29.5 to \$33.6

*\*All figures are in 2008 dollars.*



# IMG Overview

- Headquartered in Washington, DC metro area
- Multi-disciplined team of 25 seasoned professionals with more than 150 years of infrastructure experience as authority directors, city managers, facility operators and financial executives
- 200+ engagements for 100+ public and private sector agencies, authorities, and investors
- \$100+ B of deals across the infrastructure lifecycle - feasibility, development, construction, finance, upgrade and mature operations
- Experience across 22+ U.S. states, the Americas, Europe, Africa and Asia
- IMG Capital launched in January 2008 to serve as international investment division for investor advisory and buy-side origination



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